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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,446	01/02/2002	Andrew Tye Hunt	0005-GL-US	5908
24948	7590	07/10/2006	EXAMINER	
ALFRED H. MURATORI MICROCOATING TECHNOLOGIES, INC. 5315 PEACHTREE INDUSTRIAL BLVD ATLANTA, GA 30341-2107			FLETCHER III, WILLIAM P	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,446

Applicant(s)

HUNT ET AL.

Examiner

William P. Fletcher III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/11/2006 & 4/15/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-60 and 62-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-60 and 62-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Receipt is acknowledged of applicant's compliant amendment to the claims, filed 04/25/2006. Claims 48-60 and 62-67 remain pending.
2. The amendment merely incorporates dependent claim 61 into the independent claim.

Response to Arguments

3. Applicant's arguments have been fully considered. Because independent claim 1 is now identical in scope to previously-pending dependent claim 61, Hunt no longer anticipates this claim. Hence, the rejections under 35 USC 102 set-forth in the prior Office action are withdrawn. Nevertheless, it is the examiner's position that the claims, as-amended, remain obvious for the reasons set-forth in the prior Office action.
4. The basis for the examiner's rejection of previously-pending claim 61, as correctly understood by applicant, lies in the embodiment of Hunt's invention using multiple coating heads. As noted in the prior Office action, thermal recovery is inherent between treatment by one coating head and the next. Applicant does not contest this. Rather, applicant's traversal is based on an overly-generous reading of Hunt's disclosure. While the multiple-coating-head embodiment is concerned with coating efficiency, it is not *necessarily* concerned with coating efficiency *speed* as argued by applicant. According to Hunt, economy (i.e., advantage) comes from being able to process larger substrates than in a single-coating-head arrangement:

In addition to permitting the thin film coating of larger units of those substrates which previously too large to be coated, this technique permits the coating of larger units of those substrates which previously were coated under vacuum conditions. Manufacturing economies can be achieved by coating larger units of these substrates, especially when mass production of the substrate is involved. [9:12-24]

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This section, which was quoted in applicant's response, says nothing about processing speed. Applicant's equating efficiency in Hunt with a fast processing time is an assumption not supported by Hunt's disclosure. Based on this assumption, applicant argues that a 10% thermal recovery in Hunt is *disadvantageous* because the time it would take for such a decrease would slow down the process, thereby making such a modification "inconsistent with the desire for efficient coating in Hunt." This is not persuasive because, as demonstrated above, a faster coating speed is neither a stated desire nor a measure of efficiency in Hunt's multiple-coating-head embodiment.

It is a stated desire of Hunt to avoid the deleterious effects of high temperatures on the substrate [see the beginning of paragraph 0053]. As stated by the examiner, the rate and degree of cooling is a result-effective variable effecting the overall thermal stress placed on the substrate.¹ Since Hunt is concerned with minimizing such thermal stress, optimization of the thermal recovery between coating applications would have been obvious. *Even if* processing time were a concern to Hunt, the examiner notes that Hunt teaches:

The substrate may be cooled by directing a flow of inert cooling fluid, preferably a gas, at a surface which is remote from the deposition zone, such as the surface of the substrate which is opposite the surface exposed to the deposition zone. [15:16-20]

The use of such a cooling gas clearly reduces the time in which the thermal recovery takes place. Consequently, one of ordinary skill in the art would have had a reasonable expectation of successfully making the combination, which renders the claims obvious.

Applicant's arguments are not persuasive and the claims as-amended remain rejected as detailed below.

Claim Rejections - 35 USC § 103

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5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 48-53, 55, 56, 58-60, and 62-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt et al. (EP 0 976 847 A2).**

These claims are rejected for the reasons set-forth in paragraphs 6-10 and 14-17 of the prior Office action, as explained above.

8. **Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt as applied to claim 48 above, and further in view of Hunt et al. (US 5,652,021).**

This claim is rejected for the reasons set-forth under this heading in the prior Office action, as explained above.

9. **Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt as applied to claim 48 above, and further in view of Kilian et al. (EP 0 709 487 A1).**

This claim is rejected for the reasons set-forth under this heading in the prior Office action, as explained above.

¹ This point is not contested by applicant.

Conclusion

10. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

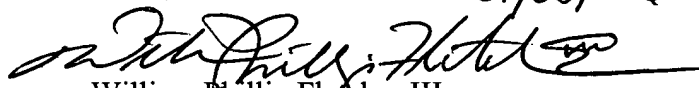
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Tuesday through Saturday, 0700h to 1730h.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

07/03/2006



William Phillip Fletcher III
Patent Examiner (FSA), USPTO
Art Unit 1762

Alexandria, VA